PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY	'Alel			
То:	PCTP23634PCT			
100011	rel 1000			
22/F,Great Eagle Centre, 23 Harbour Road, Wanchai, HONG KONG P.R.China	NOTIFICATION OF TRANSMITTAL OF			
KONG F.R.China	THE INTERNATIONAL SEARCH REPORT AND			
CHINA PATENT AGENT (H.K.) LTD	THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION			
·	SEARCHING AUTHORIT 1,0K THE DECLARATION			
	(PCT Rule 44.1)			
	D. C. W.			
	Date of mailing 2007 (2 5 · 0 1 · 2 0 0 7)			
	(uzymoniu)			
Applicant's or agent's file reference FPEL06150019	FOR FURTHER ACTION See paragraphs 1 and 4 below			
International application No.	International filing date			
PCT/CN2006/000545	(day/month/year) 29 Mar. 2006 (29.03.2006)			
Applicant				
INTEL CORPORATION ET-AL				
1. The applicant is hereby notified that the international sear	ch report and the written opinion of the International Searching			
Authority have been established and are transmitted herev Filing of amendments and statement under Article 19:				
The applicant is entitled, if he so wishes, to amend the cla	ims of the international application (see Rule 46):			
When? The time limit for filing such amendments International search report.	s is normally two months from the date of transmittal of the			
Where? Directly to the International Bureau of WI				
1211 Geneva 20, Switzerland, Facsimile No For more detailed instructions, see the notes on the				
2. The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.				
3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:				
applicant's request to forward the texts of both the pro-	peen transmitted to the International Bureau together with the rotest and the decision thereon to the designated Offices.			
no decision has been made yet on the protest; the app	plicant will be notified as soon as a decision is made.			
4. RemInders	he intermedianal amplication will be much lighted by the			
Shortly after the expiration of 18 months from the priority date, to International Bureau. If the applicant wishes to avoid or postportion	ne international application will be published by the neepublication, a notice of withdrawal of the international			
application, or of the priority claim, must reach the Internation respectively, before the completion of the technical preparation.	nal Bureau as provided in Rules 90bis.1 and 90bis.3,			
•	n the written opinion of the International Searching Authority to			
the International Bureau. The International Bureau will send	a copy of such comments to all designated Offices unless an			
international preliminary examination report has been or is to the public but not before the expiration of 30 months from the	be established. These comments would also be made available to priority date.			
Within 19 months from the priority date, but only in respec	•			
preliminary examination must be filed if the applicant wishes t	to postpone the entry into the national phase until 30 months from			
prescribed acts for entry into the national phase before those de	licant must, within 20 months from the priority date, perform the esignated Offices.			
In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19				
months.	, , , , , , , , , , , , , , , , , , , ,			
See the Annex to Form PCT/IB/301 and, for details about the a Guide, Volume II, National Chapters and the WIPO Internet sit	pplicable time limits, Office by Office, see the PCT Applicant's			
omae, volume ii, riadonai Onapeero and the wire internet sit				
Name and mailing address of the ISA/	Authorized officer			
The state Intellectual Property Office, the P.R.China	SUN Zhiling			
6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China				
100088				
Facsimile No. 86-10-62019451	Telephone No. (86-10)62086084			

Facsimile No. 86-10-62019451 Form PCT/ISA/220 (January 2004)

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see PCT Applicant's Guide, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see PCT Applicant's Guide, Volume I/A, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- 1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
 - "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- 2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
 - "Claims 1 to 15 replaced by amended claims 1 to 11."
- 3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 - "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
 - "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]:
 - "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence If a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1bis(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of FormPCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43bis.1(c)).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the PCT Applicant's Guide, Volume II.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification of Transmittal of International Search Report			
FPEL06150019	ACTION (Form PCT/ISA/220) as well as, where applicable, item 5 below.			
International application No.	International filing date (day/month/year) (Earliest)Priority date (day/month/year)			
PCT/CN2006/000545	29 Mar. 2006 (29.03.2006)			
Applicant				
INTEL CORPORATION ET-AL				
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.				
This international search report consists of a	total of 4 sheets.			
☐ It is also accompanied by a copy of	each prior art document cited in this report.			
1. Basis of the report				
a. With regard to the language, the inter	national search was carried out on the basis of:			
the international application in the	language in which it was filed			
a translation of the international ap	plication into, which is the language of a translation			
furnished for the purposes of international	al search (Rules 12.3(a) and 23.1(b))			
b. With regard to any nucleotide ar	nd /or amino acid sequence disclosed in the international application, see Box No. I.			
2. Certain claims were found unsea	rchable (see Box No. II).			
3. Unity of invention is lacking (see	Box No. III)			
4. With regard to the title,				
★ the text is approved as submitted by	by the applicant.			
the text has been established by this Authority to read as follows:				
	NO DOCKETING REQUIRED N.A.			
5. With regard to the abstract,				
★ the text is approved as submitted by	y the applicant.			
the text has been established, accor	rding to Rule 38.2(b), by this Authority as it appears in Box IV. The applicant may, within			
one month from the date of mailing	of this international search report, submit comments to this Authority.			
6. with regard to the drawings,				
a. The figure of the drawings to be publish	ned with the abstract is Figure No. 4			
as suggested by the applicant. as selected by this Authority, be	ecause the applicant failed to suggest a figure.			
	ecause this figure better characterizes the invention.			
b. none of the figures is to be published with the abstract.				
b. I holic of the right as to be published	n institute monare			

INTERNATIONAL SEARCH REPORT

International application No. PCT/CN2006/000545

A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04L12/00 H04L29/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI. EPODOC, PAJ, CNPAT,CNKI: PROTOCOL, FEEDBACK, OPTIMIZ+, SELECT+, CHOOS+, CHOSEN REWARD+, SERVER, TFTP, ADJUST+, ALTER+, CHANG+, LEARN+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN1402494A (UNIV QINGHUA) 12 Mar. 2003 (12.03.2003), Page7,8	1-20
Y	US7013238B1 (MICROSOFT CORP) 14 Mar. 2006 (14.03.2006), Column 4	1-20
A	CN1659800A (BAO G) 24 Aug. 2005 (24.08.2005), the whole description	1-20

Further documents are listed in the continuation of Box C. See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim (S) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
23 Dec. 2006 (23.12.2006)

Name and mailing address of the ISA/CN

The state Intellectual Property Office, the P.R.China
6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China
100088

Date of mailing of the international search report.

5 Authorized officer

SUN Zhiling
Telephone No. (86-10)62086084

<u>86-10-62019451</u> Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No. PCT/CN2006/000545

CN1402494A	12.03.2003	CN1169332C	29.09.2004
US7013238B1	14.03.2006	NONE	
CN1659800A	24.08.2005	US2003204615A1	30.10.2003
		WO03094384A2	13.11.2003
		AU2003231193A1	17.11.2003
		EP1508206A2	23.02.2005
		JP2005524330T	11.08.2005
·		EP1657841A2	17.05.2006
		KR20040102198A	03.12.2004
		TW200406097A	16.04.2004

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2006/000545

ON A COURT OF THE PROTECT MATTER	
CLASSIFICATION OF SUBJECT MATTER H04L29/06(2006.01)i H04L12/56(2006.01)n	
H04L12/56(2006.01)n	
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Form PCT/ISA /210 (extra sheet) (April 2005)

PATENT COOPERATION TREATY

INTERNATIONAL SEARCHING AUTHOR	ITY		
		PCT	
100011 22/F,Great Eagle Centre, 23 F Wanchai, HONG KONG, P.I		WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY	
CHINA PATENT AGENT (H.K.) LTD		(PCT Rule 43 bis.1)	
		Date of mailing	
		(gay/month/year) 2007 (2 5 · 0 1 · 2 0 0 7)	
Applicant's or agent's file reference		FOR FURTHER A	
FPEL06150019			see paragraph 2 below
International application No.	International filing da		Priority date (day/month/year)
PCT/CN2006/000545	I	(29.03.2006)	
International Patent Classification (IPC) or b			
	See supple	mental box	
Applicant INTEL CORPORATION ET-AL			
This opinion contains indications relati	ing to the following iter	ns:	
		113.	
Box No. I Basis of the opinion Box No. II Priority Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. IV Lack of unity of invention Box No. V Reasoned statement under Rule 43bis.1(a)(i)with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement Box No. VI Certain documents cited Box No. VII Certain defects in the international application Box No.VIII Certain observations on the international application			
2. FURTHER ACTION			
If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.			
For further options, see Form PCT/ISA/220.			
3. For further details, see notes to Form PCT/ISA/220.			
Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451 Date of completion of this opinion 23 Dec. 2006 (23.12.2006) SUN Zhiling SUN Zhiling Telephone No. 86-04-62086084			SUN Zhiling

International application No. PCT/CN2006/000545

Во	x No	. I	Basis of the opinion
1.	Wi	th reg	ard to the language, this opinion has been established on the basis of:
		a ti	international application in the language in which it was filed ranslation of the international application into, which is the language of a translation aished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2.	Wit inv	h rega	ard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed a, this opinion has been established on the basis of:
	a.		of material a sequence listing table(s) related to the sequence listing
	b.		at of material on paper in electronic form
	c.		of filing/furnishing contained in the international application as filed filed together with the international application in electronic form furnished subsequently to this Authority for the purposes of search
3.		furni	dition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or shed, the required statements that the information in the subsequent or additional copies is identical to that in the cation as filed or does not go beyond the application as filed, as appropriate, were furnished.
4.	Add	litiona	al comments:

International application No. PCT/CN2006/000545

Statement:	s supporting such statemen		
Novelty (N)	Claims	1-20	YES
•	Claims	NONE	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims	NONE	NO

2. Citations and explanations

The invention relates to optimization of network protocol options by reinforcement learning and propagation. The following documents cited in this report are considered to be the related prior art.

D1:(CN1402494A), which discloses a method for selecting transmission protocol based on client terminal feedback.

D2:(US7013238B1), which discloses an item recommendation method in computer system.

D3:(CN1659800A), which discloses a packet transmitting apparatus for wireless communication application.

About the novelty:

D1, D2, D3 don't disclose all the features of independent claims 1,8,15. So the solutions of independent claims 1,8,15 meet the requirements of Article 33 (2) PCT and have the novelty. Therefore the dependent claims 2-7,9-14,16-20 also meet the requirements of Article 33 (2) PCT.

About the inventive step:

For the independent claim 1, D1 is regarded as being the closest prior art to the present invention, which discloses (see page 7,8 in D1): The server initiates a test packet and sends the test packet to clients. The client collects and analyzes the result of the test, and sends the feedback information to the server. The server selects the corresponding transmission protocol according to the feedback information of the client and sends the selected result to the client. The server and the client both configure the information of the network interface according to the transmission protocol of the selected result. According to the transmission protocol of the selected result the server sends the packet to the client. The different characters compared with claim 1 in D1 are that:the learning component, and conducting by the learning component different trials of one or more options in different states for network communication via a protocol of the network. But the above features have been disclosed by D2 (see column 4 in D2): the system adjusts its internal parameters based on the feedback after a sufficient number of iterations. It is obvious that the person skilled in the art can get the subject matter of claim 1 considering D1 and D2 in combination. So, the solution of claim 1 does not meet the requirements of Article 33 (3) PCT, and does not involve the inventive step.

The additional features of the dependent claims 2-7 can be obtained obviously by the person skilled in the art from the contents taught by D1 (see page 7,8 in D1) and D2 (see column 4 in D2) and these characters well

International application No. PCT/CN2006/000545

Supplemental Box:

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

known in the art. Therefore claims 2-7 do not involve an inventive step, and do not meet the criteria set out in Article 33(3) PCT.

For the independent claim 8, D1 is regarded as being the closest prior art to the present invention, which discloses (see page 7,8 in D1): The server initiates a test packet and sends the test packet to clients. The client collects and analyzes the result of the test, and sends the feedback information to the server. The server selects the corresponding transmission protocol according to the feedback information of the client and sends the selected result to the client. The server and the client both configure the information of the network interface according to the transmission protocol of the selected result. According to the transmission protocol of the selected result the server sends the packet to the client. The different characters compared with claim 8 in D1 are that: an option negotiation component, a file transfer component, and adjusting the selection of the one or more options based on the rewards. D2 has disclosed the following features (see column 4 in D2): the system adjusts its internal parameters based on the feedback after a sufficient number of iterations. It is obvious that the person skilled in the art can get the subject matter of claim 8 considering D1 and D2 and the technical features well known in the art. So, the solution of claim 8 does not meet the requirements of Article 33 (3) PCT, and does not involve the inventive step.

The independent claim 15 requests for a system comprising a network environment and a server coupled to the network environment via a network interface, wherein the features included in the server is same to those in the apparatus of claim 8. As the solution of claim 8 does not involve the inventive step, those skilled in the art can obtain the subject matter of claim 15 considering D1 and D2 and the technical features well known in the art. So, the solution of claim 15 does not meet the requirements of Article 33 (3) PCT, and does not involve the inventive step.

The additional features of the dependent claims 9-14,16-20 can be obtained obviously by the person skilled in the art from the contents taught by D1 (see page 7,8 in D1) and D2 (see column 4 in D2) and these characters well known in the art. Therefore claims 9-14,16-20 do not involve an inventive step, and do not meet the criteria set out in Article 33(3) PCT.

About the industrial applicability:

Claims 1-20 have industrial applicability under Article 33(4) PCT, because the technology schemes claimed can be made or used in the industry.

International application No. PCT/CN2006/000545

Supplemental Box
In case the space in any of the preceding boxes is not sufficient.
Continuation of: International Patent Classification (IPC) or both national classification and IPC
H04L29/06(2006.01)i H04L12/56(2006.01)n
,